

**CASE STUDY:**  
MAJOR DISTRIBUTION CENTRE -  
BARCELONA

**JUTA**



**TITANTECH®**

# Future proofing high tech fulfillment and distribution centre

A new fulfillment and distribution facility in the centre of Barcelona utilising high end robotic technology is treated to future proof gas protection with GP® TITANFLEX® protective barriers.



**GP®  
TITANFLEX®**

**300 TT  
PROTECTION  
GEOTEXTILE**

**900 TT  
PROTECTION  
GEOTEXTILE**

**Materials**  
GP® TITANFLEX®,  
300 TT and 900 TT  
protection geotextiles

**Specialist Installer**  
OREMAG

**Verification and sign-off**  
JUTA UK

**Volume:** 25,000 m<sup>2</sup>

**Date:** June 2021

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Acciona Construcción approached JUTA UK early 2021 to help with the design, supply and install of 25,000 m<sup>2</sup> gas protection for a high profile site with a partial basement construction. The previous site use, situated close to the railway line had left residual hydrocarbon contaminants in the ground, and commonly used geomembrane materials were not able to provide sufficient protection.

JUTA UK engaged with the client design team, and provided chemical resistance data and vapour intrusion analysis to enable the specification and use of the GP® TITANFLEX® membrane as the protective barrier. A double layer of protection geotextiles (300TT below the GP® TITANFLEX® and 900TT above) were also designed through calculations to prevent puncture of the membrane from site traffic and laser screeding equipment.

GP® TITANFLEX® is an extremely robust gas and hydrocarbon barrier; it's a multilayer membrane designed specifically to perform as a protection system against methane, carbon dioxide, radon, ground gas, VOC, moisture and hydrocarbons. The membrane is 0.5 mm thick and 2 m wide, supplied in lengths of 50 m.

For this specialist project it was utilised as a waterproofing and damp proofing membrane with enhanced resistance to the passage of harmful chemicals and ground gases.

*Acciona Construcción commented:  
"Thank you to JUTA UK, who were exceptional from day one through to completion. We look forward to working with the team on the next projects. The added value from having such knowledgeable and competent advice from an early stage has saved us so much time and expense."*



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The JUTA UK protection geotextiles are manufactured from high tenacity virgin polypropylene fibres, and are chemically inert, offering enhanced geomembrane protection over extremely long design service lives (over 100 years).

The project took approx. one month to complete and included complex steel frame connections and a loading bay sealing.

JUTA UK assisted with the product selection and relevant justifications taking place throughout the design process. As well as attending site meetings, and providing installer training on site, JUTA UK provided construction issue drawings and periodically inspected the site during the install.

Once completed JUTA UK were able to sign-off on the installation providing certificates of conformance.

The project was under additional scrutiny from local regulators given the high profile nature of the site, and it's importance to the local economy. Every step of the way JUTA UK was on hand to assist with any queries and enable discharge of regulatory requirements around contaminated land to enable the site to become operational.

*Patrick Flood, Technical Director for JUTA was delighted with how the project was delivered overall, he said:*  
*"We are pleased to see and feel the recognition of our efforts and service on this one! It was long days and hard work at the outset helping with product approvals and providing the vapour mitigation assessment and puncture resistance calculations for the geotextile elements. Long have we stood by and watched others succeed on projects like this based on marketing and sales pitches alone, but the tide is firmly turning, and justification to substantiate claims are well and truly part of the levelling up culture. JUTA UK stands to benefit in a world where the specifier asks the manufacturer to 'prove it!'. We have one of the most competent teams of people, and an unrivalled skill set in our industry. Bring it on! "*

